

1 What is Claimed is:

2  
3 1. A capacitor network comprising:  
4 a first capacitor, said first capacitor having a first  
5 temperature coefficient and a first nominal capacitance, said  
6 first nominal capacitance value having a first tolerance  
7 range, and said first nominal capacitance value independently  
8 determined;

9 a second capacitor, said second capacitor having a second  
10 temperature coefficient and a second nominal capacitance, said  
11 second nominal capacitance value having a second tolerance  
12 range, and said second nominal capacitance value determined by  
13 a design ratio between said first nominal capacitance value  
14 and said second nominal capacitance value;

15 said first capacitor and said second capacitor fabricated  
16 in a single package using a common dielectric material;

17 whereby said design ratio has a predetermined tolerance  
18 range that is independent of said first and second tolerance  
19 ranges and said first and second temperature coefficients.  
20

21 2. The capacitor network of claim 1, wherein said first  
22 capacitor further comprises a first plurality of parallel  
23 electrodes, each of said first plurality of parallel  
24 electrodes separated by said common dielectric material.  
25

26 3. The capacitor network of claim 2, wherein said first  
27 plurality of parallel electrodes are separated by a first  
28 predetermined distance.  
29

30 4. The capacitor network of claim 1, wherein said  
31 second capacitor further comprises a second plurality of  
32 parallel electrodes, each of second plurality of parallel  
33 electrodes separated by said common dielectric material.  
34

1        5. The capacitor network of claim 4, wherein said  
2 second plurality of parallel electrodes are separated by a  
3 second predetermined distance.  
4

5        6. The capacitor network of claim 1, wherein said  
6 common dielectric material comprises a class one dielectric  
7 material.  
8

9        7. The capacitor network of claim 6, wherein said class  
10 one dielectric material comprises N2200 dielectric material.  
11

12       8. The capacitor network of claim 1, where said first  
13 tolerance range further comprises a first lower limit and a  
14 first upper limit, said first nominal capacitance value  
15 between said first lower limit and said first upper limit, and  
16 said first lower limit and said first upper limit measured as  
17 a percentage of said first nominal capacitance value.  
18

19       9. The capacitor network of claim 1, where said second  
20 tolerance range further comprises a second lower limit and a  
21 second upper limit, said second nominal capacitance value  
22 between said second lower limit and said second upper limit,  
23 and said second lower limit and said second upper limit  
24 measured as a percentage of said second nominal capacitance  
25 value.  
26

27       10. The capacitor network of claim 1, wherein said first  
28 nominal capacitance and said second nominal capacitance are  
29 related by a predetermined ratio, said predetermined ratio  
30 determined by dividing said second nominal capacitance by said  
31 first nominal capacitance, and said second nominal capacitance  
32 established by multiplying said first nominal capacitance by  
33 said predetermined ratio.  
34

35       11. A capacitor network comprising:

1 a first capacitor, said first capacitor having a first  
2 temperature coefficient and a first nominal capacitance value  
3 having a first tolerance range, said first nominal capacitance  
4 value independently determined, said first capacitor further  
5 comprising a first plurality of parallel electrodes, each of  
6 said first plurality of parallel electrodes separated by said  
7 common dielectric material;

8 a second capacitor, said second capacitor having a second  
9 temperature coefficient and a second nominal capacitance value  
10 having a second tolerance range, said second nominal  
11 capacitance value determined by a design ratio between said  
12 first nominal capacitance value and said second nominal  
13 capacitance value, said second capacitor further comprising a  
14 second plurality of parallel electrodes, each of second  
15 plurality of parallel electrodes separated by said common  
16 dielectric material;

17 said first capacitor and said second capacitor fabricated  
18 in a single package using a common dielectric material, said  
19 common dielectric material further said common dielectric  
20 material comprises a class one dielectric material.

21 comprising a class one dielectric material;

22 whereby said design ratio has a predetermined tolerance  
23 range that is independent of said first and second tolerance  
24 ranges and said first and second temperature coefficients.

25  
26 12. The capacitor network of claim 11, wherein said  
27 first plurality of parallel electrodes are separated by a  
28 first predetermined distance.

29  
30 13. The capacitor network of claim 11, wherein said  
31 second plurality of parallel electrodes are separated by a  
32 second predetermined distance.

33  
34 14. The capacitor network of claim 11, wherein said  
35 class one dielectric material comprises N2200 dielectric  
36 material.

1  
2        15. The capacitor network of claim 11, where said first  
3 tolerance range further comprises a first lower limit and a  
4 first upper limit, said first nominal capacitance value  
5 between said first lower limit and said first upper limit, and  
6 said first lower limit and said first upper limit measured as  
7 a percentage of said first nominal capacitance value.

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9        16. The capacitor network of claim 11, where said second  
10 tolerance range further comprises a second lower limit and a  
11 second upper limit, said second nominal capacitance value  
12 between said second lower limit and said second upper limit,  
13 and said second lower limit and said second upper limit  
14 measured as a percentage of said second nominal capacitance  
15 value.

16  
17        17. A capacitor network comprising:  
18        a first capacitor, said first capacitor having a first  
19 temperature coefficient and a first nominal capacitance value  
20 having a first tolerance range, said first nominal capacitance  
21 value independently determined, said first capacitor further  
22 comprising a first plurality of parallel electrodes, each of  
23 said first plurality of parallel electrodes separated by said  
24 common dielectric material, said first tolerance range further  
25 comprises a first lower limit and a first upper limit, said  
26 first nominal capacitance value between said first lower limit  
27 and said first upper limit, and said first lower limit and  
28 said first upper limit measured as a percentage of said first  
29 nominal capacitance value;

30        a second capacitor, said second capacitor having a second  
31 temperature coefficient and a second nominal capacitance value  
32 having a second tolerance range, said second nominal  
33 capacitance value determined by a design ratio between said  
34 first nominal capacitance value and said second nominal  
35 capacitance value, said second capacitor further comprising a  
36 second plurality of parallel electrodes, each of second

1 plurality of parallel electrodes separated by said common  
2 dielectric material, further comprises a second lower limit  
3 and a second upper limit, said second nominal capacitance  
4 value between said second lower limit and said second upper  
5 limit, and said second lower limit and said second upper limit  
6 measured as a percentage of said second nominal capacitance  
7 value;

8       said first capacitor and said second capacitor fabricated  
9 in a single package using a common dielectric material, said  
10 common dielectric material further said common dielectric  
11 material comprises a class one dielectric material.  
12 comprising a class one dielectric material;

13       whereby said design ratio has a predetermined tolerance  
14 range that is independent of said first and second tolerance  
15 ranges and said first and second temperature coefficients.

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17       18. The capacitor network of claim 17, wherein said  
18 first plurality of parallel electrodes are separated by a  
19 first predetermined distance.

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21       19. The capacitor network of claim 17, wherein said  
22 second plurality of parallel electrodes are separated by a  
23 second predetermined distance.

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25       20. The capacitor network of claim 17, wherein said  
26 class one dielectric material comprises N2200 dielectric  
27 material.

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